





# Starrett: Precision, Quality and Innovation.

For more than 130 years, manufacturers worldwide have depended upon precision tools from the L.S. Starrett Company to ensure the consistent quality of their products.

The most demanding craftsmen and professionals know that the Starrett name on a band saw blade, hand tool or measuring tool means quality, exceptional service and expert technical assistance.

With strict quality control, state-of-the-art equipment and an ongoing commitment to R&D, the 5,000+ products in today's Starrett line continue to be the most accurate, robust and durable tools available.

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4 Starrett Worldwide

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## **BAND SAW BLADES**

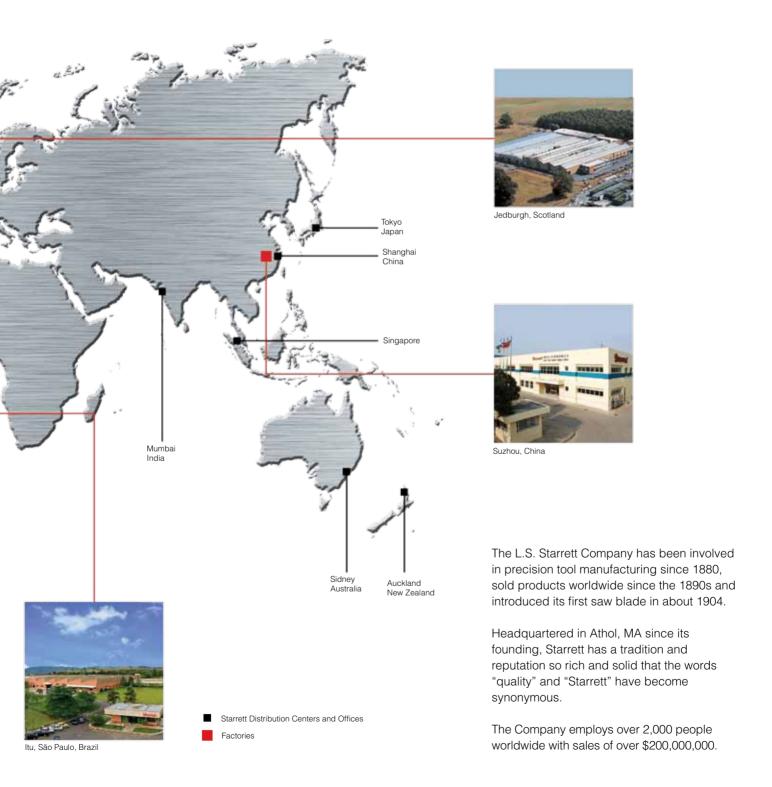
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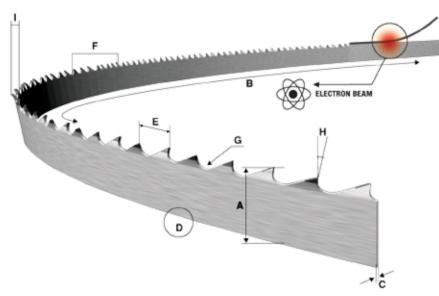






## FACTORIES AROUND THE WORLD





## A - WIDTH

Tip of the cutting edge to the back of the blade.

## **B - LENGTH**

Measurement along the back edge of the blade.

## **C-THICKNESS**

Measurement of the body of the blade.

## **D - BACK EDGE**

Opposite side of the blade from the teeth.

## **E - TOOTH PITCH**

Distance from the tip of one tooth to the next tip.

## F - TEETH PER INCH/25MM

Number of teeth per inch/25mm.

## **G** - **GULLET**

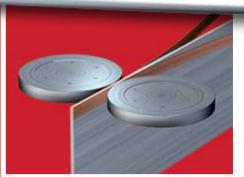
The curved area between two teeth.

## **H-TOOTH FACE**

Surface of the tooth where the chip is formed. The tooth can have a positive or straight angle when measured against a line perpendicular from the back of the blade.

## I - TOOTH SET

The bending of the teeth, right and left, to allow blade clearance through the cut.



170% MORE WELD CONTACT AREA



**MULTIPLE CUTTING EDGES** 



**SPLIT CHIP ADVANTAGE** 



## **TERMINOLOGY**

	Constant Pitch	Variable Pitch	
INTENSS		.8-1.3 to 14-18	Aggressive positive rake (up to 12°). Use for high production cutting of solids or heavy wall profiles. M-42 high speed edge with 8% cobalt.
INTENSS PRO-VTH		1-2 to 4-6	Positive rake (up to 12°) product with a patented surging cutting action. Use with nickel alloys, stainless steels, and heat treated steels (up to HRc 45).
VERSATIX MP		2-3 to 6-10	Computer designed product with a resultant robust positive rake tooth aimed specifically for intercept cuts on beams, channels, and tubes. Works well for all general cutting. M-42 - 8% cobalt teeth.
REGULAR	6 to 32	8-12 to 14-18	A standard 0° rake tooth form good for general and light duty cutting applications.
HOOK	2 to 6		A 10° rake angle available in the carbon line. Good for fast cutting of hardwoods and nonferrous materials.
SKIP	3 to 6		0° rake tooth with expanded gullet area. Works well in soft woods, nonferrous and non-metallics.
ADVANZ FS & TS (Carbide Tipped)	1 to 3	.9-1.1 to 3-4	CNC ground triple chip tooth form. Excellent for high production rates on hard metallic and abrasive nonmetallics. Advanz™ FS is for shock, foundry applications. Advanz™ TS is for heat treated, difficult to machine materials.

## TOOTH SHAPES

## **TOOTH**



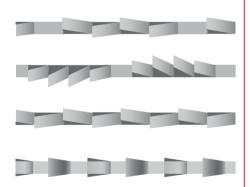
## **CONSTANT PITCH**

All teeth on the blade have uniform spacing, gullet depth and rake angle throughout the full length. Typically for general purpose cutting. Identified by one pitch number.

## **VARIABLE PITCH**

Size of tooth and depth of gullet varies to substantially reduce noise levels and vibrations. Cuts all structurals, tubing and solids smoothly and quickly. Identified by two pitch numbers.

## **SETS**



## **RAKER SET**

A recurring sequence of teeth set left and right, followed by one tooth unset. Frequency of unset teeth on variable pitch blades varies depends on the tooth configurations.

## **WAVY SET**

Groups of teeth set to each side of the blade, with varying amounts of set in a controlled pattern.

## **ALTERNATE SET**

A recurring sequence of teeth set alternately left and right.

## **TRAPEZOIDAL**

Special carbide cylinder welded in the tooth edge, being slightly thicker than the blade, and triple chip grind.



## **CHARACTERISTICS**



Use this guide to choose the blade that will work best for the material to be cut, or provide an acceptable result, as necessary.

## **EXOTIC & NICKEL-BASED ALLOYS**

Intenss™ PRO or Intenss™ VTH

## **TOOL & STAINLESS STEEL**

Intenss™ PRO or Intenss™ VTH

### **ALLOY & HIGH CARBON STEEL**

Intenss™ PRO

## **GENERAL PURPOSE**

Intenss™ PRO

### **CARBON STEEL**

Intenss™ PRO-DIE

### STRUCTURAL STEEL

Intenss™ PRO-ST or Versatix™ MP

### **ALUMINUM**

Intenss™ PRO or Intenss™ PRO-DIE or Duratec™ FB

## **CAST ALUMINUM**

Advanz™ FS

## **THIN FERROUS SECTIONS**

Duratec™ FC

## COMPOSITES, FIBERGLASS, GRAPHITE & CERAMICS

Advanz™ CG or Advanz™ DG

## **WOOD & PLASTIC**

Woodpecker™ Premium or Woodpecker XF™

## FOAM, PAPER PRODUCTS & RUBBER

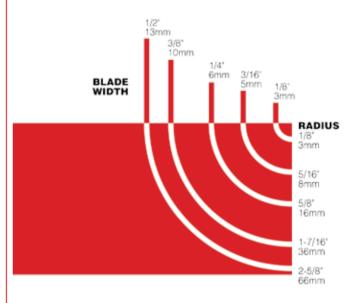
Band Knives

## FRESH OR FROZEN MEAT OR FISH (WITH OR WITHOUT BONES)

Meatkutter™ Premium or Meatkutter™ Stainless



Use the widest blade your machine will take except for contour cutting. Use this chart for cutting radii:



## TOOTH SHAPE

**Regular** - A conventional tooth used for general purpose sawing, straight or zero rake.

**Intenss™ PRO** - Large teeth, up to 12° positive rake angle, for optimum production cutting of steels up to HRc 45, stainless, nickel based and nonferrous alloys.

Hook - A positive rake for fast cutting of nonferrous metals and non-metallics.

**Skip** - Zero rake and shallow gullets for cutting large sections of soft, nonferrous material.



## PITCH

Pitch is the number of teeth per inch or 25mm. Cutting thinner sections requires a finer pitch (more teeth per inch/25mm). Thick sections require coarser pitches (fewer teeth per inch/25mm).

The charts are good guidelines. Because the cross section limits in the chart are broad and overlap, choose a coarser pitch if the speed of cut is most important. Choose a finer pitch if finish is most important.

Section Size (Inch)	Constant Pitch (TPI)	Variable Pitch (TPI)
5/32" - 3/8"	32 or 24	14-18
1/4" - 1/2"	18 or 14	10-14
1/2" - 3/4"	14 or 10	8-12
3/4" - 1"	10 or 8	6-10
1" - 1-1/2"	8 or 6	5-8
1-1/2" - 3-1/2"	6 or 4	4-6
3-1/2" - 7"	4 or 3	3-4
7" - 10"	3	2-3
10" - 16"		1.4-2
14" - 20"		1-2
16" - 32"		1-1.2
Over 30"		.8-1.3

## BLADE LENGTH

The blade length varies according to the band saw machine type and specifications. Please find the correct blade length on your band saw machine user manual.



Wall Thickness				Outsid	e diameter	of tube or	maximum	profile sec	tion lengt	h (Inch)			
(Inch)	3/8″	3/4"	1-5/8"	2-3/8"	3-1/4"	4"	4-3/4"	6"	8″	12"	16"	20"	24"
3/32"	14-18	14-18	10-14	10-14	10-14	10-14	8-12	8-12	8-12	8-12	6-10	6-10	5-8
1/8″	10-14	10-14	10-14	10-14	10-14	8-12	8-12	8-12	6-10	6-10	6-10	5-8	5-8
5/32"		8-12	8-12	8-12	8-12	6-10	6-10	6-10	5-8	5-8	4-6	4-6	4-6
3/16″		6-10	6-10	6-10	6-10	5-8	5-8	5-8	5-8	4-6	4-6	4-6	4-6
1/4″		5-8	5-8	5-8	5-8	5-8	5-8	5-8	4-6	4-6	4-6	4-6	3-4
5/16″			4-6	4-6	4-6	4-6	4-6	4-6	4-6	4-6	3-4	3-4	3-4
3/8″			4-6	4-6	3-4	3-4	3-4	3-4	3-4	3-4	3-4	2-3	2-3
1/2″				4-6	3-4	3-4	3-4	3-4	3-4	3-4	2-3	2-3	2-3
5/8″				4-6	3-4	3-4	3-4	3-4	3-4	2-3	2-3	2-3	2-3
3/4"				4-6	3-4	3-4	3-4	3-4	3-4	2-3	2-3	2-3	2-3
1″					3-4	3-4	3-4	3-4	2-3	2-3	2-3	1.4-2	1.4-2
1-1/4″					3-4	3-4	3-4	3-4	2-3	2-3	2-3	1.4-2	1.4-2
1-5/8″						3-4	3-4	3-4	2-3	2-3	2-3	1.4-2	1.4-2
2"							3-4	3-4	2-3	2-3	1.4-2	1.4-2	1-2
2-3/8"									2-3	2-3	1.4-2	1.4-2	1-2

## BLADE SELECTION IN FIVE STEPS

## INSS™ PRO-VTH ntenss™ PRO-ST cker XFTM ersatix™ MP 푼 윤 g 8 and Knives **MATERIAL CUTTING GUIDE** The Starrett line of band saw blades has been extensively revised, with several completely MEAT PACKERS new blade lines including 0 Versatix™ MP, Advanz™ CS, Advanz™ FS and Advanz™ TS. Our new family of blades offers exceptional performance solutions for virtually any band 30 saw cutting requirement. .00 00 30 00 000 **Low Alloy Steels Aluminum Stainless Steel** Tool, Die & Mold Steels **Carbon Steel** Structural Steels Steels up to 45 HRc **Nickel Based Alloys Non Ferrous Metals Case Hardened Chrome Shaft** Wood Nail Embedded Wood Furniture **Composition Board** Plastic Acrylic Ceramic Glass **Porcelain** Fiberglass Stone Marble Granite Foam/ Fibrous Material Rubber Paper Meat

Primary Application
Secondary Application

**PRODUCTS** 







## Intenss™ Pro

Blade Width	x Thickness			В	lade Pitch	with Mater	ial Number	s (all are Po	ositive Rak	e)		
Inch	mm	.8-1.3/P	1-1.2/P	1-2/P	1.4-2/P	2-3/P	3-4/P	4-6/P	5-8/P	6-10/P	8-12/P	10-14/P
3/4" x .035"	19 x 0.90mm						99191	99902	99903	99206	99222	99234
1" x .035"	25 x 0.90mm					99905	99906	99907	99908	99318	99329	99334
1-1/4" x .042"	32 x 1.10mm			99911	99096	99912	99913	99914	99915	99500		
1-1/2" x .050"	38 x 1.30mm		99917	99919	99921	99923	99924	99926	99927			
2" x .063"	50 x 1.60mm	99928	99929	99930	99931	99932	99933	99962				
2-5/8" x .063"	67 x 1.60mm	99934	99937	99939	99941							
3-1/8" x .063"	79 x 1.60mm	99942	99943	99945	99947							

3/4" to 1-1/4" sizes available in 250' (76m) coils. 1-1/2" to 2" sizes available in 150' (45m) coils. 2-5/8" and larger available in welded bands only.







Ideal for intensive production cutting operations across a wide range of metals.

## **Features:**

- ► Positive rake angle tooth design and variable pitch for optimum cutting efficiency in high-production cutting operations.
- ► Triple tempered M-42 cobalt high speed steel teeth combined with a fatigue resistant alloy steel backing strip.

## **Benefits:**

- ► Easy penetration, excellent chip clearance and reduced noise levels.
- ► High quality surface finish and faster, straighter cuts.

- ► Steels up to HRc 45.
- ► Tool and stainless steels.
- ► Nickel based and non-ferrous alloys.









## Intenss™ Pro-Die

Blade Width	x Thickness		Blade Pitch with Material Numbers										
Inch	mm	3/P	4/P	6/P	6-10/P	8-12/P	10/S	10-14/P	10-14/S	14/S	14-18/W	18/W	24/W
1/4" x .025"	6.5 x 0.65mm			99032				99079			99080		
1/4" x .035"	6.5 x 0.90mm			99051				99078			99090		
3/8" x .025"	10 x 0.65mm			99092		99122		99124			99125		
3/8" x .035"	10 x 0.90mm		99087	99093		99091		99127			99095		
1/2" x .020"	13 x 0.50mm								99175	99172	99190	99173	99174
1/2" x .025"	13 x 0.65mm		99143	99151	99102	99165		99186			99188	99185	
1/2" x .035"	13 x 0.90mm	99138	99144	99152	99154	99167	99176	99178		99181			

 $\label{eq:continuous} \mbox{Available in 100' (30m) coils.} \quad \mbox{P: Positive Rake.} \quad \mbox{W: Wavy Set, Zero Rake.} \quad \mbox{S: Straight (Zero) Rake.}$ 





## Intenss PRO-DIE

## **Features:**

- ➤ Triple tempered M-42 cobalt high speed steel teeth combined with a fatigue resistant alloy steel backing strip.
- ► Longevity and chip clearing advantages of bi-metal unique® saw technology.
- ► Available in a variety of tooth pitches up to a maximum width of 1/2".

## **Benefits:**

- ▶ Ideal for contour and general purpose cutting.
- ► Resists heat, abrasion and shock, allowing faster cutting rates.

- ► Horizontal and vertical machines.
- ► Tool, die and mold steels.
- ► Stainless steels.
- ► Nickel based and non-ferrous alloys.





## Intenss™ Pro-VTH

Blade Width	x Thickness					
Inch	mm	1-2P/T	1.4-2P/T	2-3P/T	3-4P/T	4-6P/T
1" x .035"	25 x 0.90mm			99948	99949	99950
1-1/4" x .042"	32 x 1.10mm			99953	99954	99956
1-1/2" x .050"	38 x 1.30mm	99990		99958	99959	
2" x .063"	50 x 1.60mm	99961	99967			
2-5/8" x .063"	67 x 1.60mm	99968	99969			
3-1/8" x .063"	79 x 1.60mm	99987	99988			

<sup>1&#</sup>x27;' & 1-1/4'' sizes available in 250' (76m) coils. 1-1/2'' & 2'' sizes available in 150' (45m) coils. 2-5/8'' and larger available in welded bands only.





## Intenss PRO-V//H

High performance bi-metal band saw blade with a uniquely designed tooth edge that allows the teeth to cut in a fast, pulsating action.

## **Features:**

- ➤ Triple tempered M-42 cobalt high speed steel teeth combined with a fatigue resistant alloy steel backing strip.
- ► Aggressive "surging" cutting action created by variable tooth height and set.
- ► Ground teeth for maximum blade performance.

## **Benefits:**

- ▶ Ideal for the production cutting of a wide range of materials.
- ► Excellent heat and wear resistance.

- ► Exotic and nickel based alloys.
- ► High hardness steels.
- ► Other solids.











## Intenss™ Pro-ST

Blade Width	x Thickness	Blade Pitch with Material Numbers						
Inch	mm	1.4-2/PH	2-3/PH	3-4/PH	4-6/PH			
2" x .050"	50 x 1.30mm	99491	99486	99481	99480			
2" x .063"	50 x 1.60mm		99488	99487				
2-5/8" x .063"	67 x 1.60mm		99490	99489				

 $2^{\prime\prime}$  sizes available in 150' (45m) coils. 2-5/8" available in welded bands only. P = Positive Rake  $\,$  H = Heavy Set





Bi-metal blade with a heavy set made of M-42 high speed steel.

## **Features:**

- ► Triple-tempered M-42 high speed steel teeth with 8% cobalt; HRc 67-69.
- ► Heavy set teeth provide extra blade clearance to minimize binding or pinching when beam stresses are relieved and/or when bundles move during cutting.

## **Benefits:**

- ► Tooth design reduces vibration and noise levels for smooth, quick cutting and prevents chipping and stripping of teeth.
- ▶ Resists heat, abrasion and shock, allowing for faster cutting.

- ▶ Production cutting.
- ▶ Wide flange beams.
- ► Heavy wall structural steels.

































## **Versatix**<sup>™</sup> **MP**

Blade Width	x Thickness	Blade Pitch with Material Numbers							
Inch	mm	2-3/P	3-4/P	4-6/P	5-8/P	6-10/P			
3/4" x .035"	19 x 0.90mm			99212	99211	99210			
1" x .035"	25 x 0.90mm		99343	99342	99341	99340			
1-1/4" x .042"	32 x 1.10mm	99494	99495	99496	99497	99498			
1-1/2" x .050"	38 x 1.30mm	99517	99518	99519	99520				
2" x .050"	50 x 1.30mm	99551	99552	99553					
2" x .063"	50 x 1.60mm	99562	99563						
2-5/8" x .063"	67 x 1.60mm	99564	99565						

 $3/4^{\prime\prime}$  to 1-1/4" sizes available in 250' (76m) coils. 1-1/2" & 2" sizes available in 150' (45m) coils. 2-5/8" available in welded bands only. With Exclusive Starrett Structural Tooth Design.





## Versatix MP

Patent-pending design developed and tested by Starrett, Versatix™ MP band saw blades set new standards in cutting structural steels, sections, tubes and small solids.

The new tooth design ensures that the blades can easily cope with the shock loading conditions associated with intermittent cutting and uncontrolled feed rates.

## **Features:**

- ▶ New tooth design resulting in a significant increase in tooth strength and consequent reduction in tooth strippage.
- ► Triple tempered M-42 cobalt high speed steel teeth combined with a fatigue resistant alloy steel backing strip.

## **Benefits:**

- ▶ For use on manual, semi-automatic, and automatic machines.
- ▶ Ideal for manual "pull down" band saw machines where uncontrolled feed rates can easily overload the teeth with a standard blade.

- ► Sections.
- ► Structurals.
- ► Tubes and small solids.

















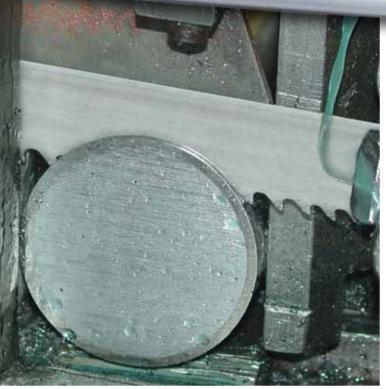


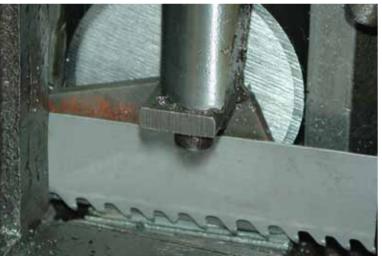












## Advanz™ CS

Blade Width	Blade Pitch with Material Numbers	
Inch	mm	3-4/N
1" x .035"	25 x 0.90mm	92564
1-1/4" x .042"	32 x 1.10mm	92565

Available in 150' (45m) coils.

With Exclusive Starrett Structural Tooth Design.

## Advanzcs

New carbide tipped band saw blades designed for cutting cased steel and induction hardened chrome shafts.

## **Features:**

- ► Teeth ground from high quality micro-grained carbide cylinders welded to a tough, ductile backing material.
- ► 20° negative tooth tip rake angle for increased strength needed to penetrate high hardness materials.
- ► Triple chip tooth geometry.

## **Benefits:**

► Exceptional resistance to fatigue, shock and wear.

- ► Shafts.
- ► Induction hardened shafts.
- ► Linear bearing shafts.
- ► Case hardened materials up to HRc 65.













## Advanz™ FS

Blade Width	Blade Pitch with Material Numbers			
Inch	mm	2-3/P	3/P	
3/4" x .035"	19 x 0.90mm		92550	
1" x .035"	25 x 0.90mm	92507	92552	
1" x .050"	25 x 1.30mm		92553	
1-1/4" x .042"	32 x 1.10mm		92513	
1-1/4" x .050"	54 x 1.30mm		92555	

All sizes available in 150' (45m) coils.

## Advanz FS

Advanz™ FS is made for sawing tough materials that bi-metal blades cannot cut.

## **Features:**

- ► Teeth ground from high quality micro-grained carbide cylinders welded to a tough, ductile backing material.
- ▶ Improved carbide to back bonding.
- ► Triple chip tooth geometry.

### **Benefits:**

- ► Exceptional resistance to fatigue, shock and wear.
- ▶ Improved tooth strip resistance.
- ► Smooth finish.
- ► Faster cutting speeds.

- ► Aluminum castings.
- ► Fiberglass.
- ► Masonite.
- ► Plastics.
- ► Composite materials.
- ► Abrasive wood.









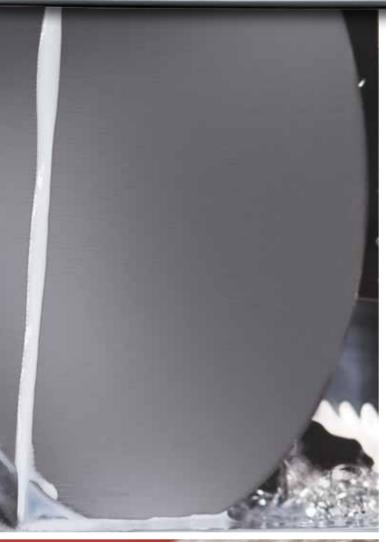




## Advanz™ TS

Blade Width	x Thickness			Blade Pitch	with Mater	;		
Inch	mm	.9-1.1/P	1/P	1.3/P	1.4-2/P	2-3/P	3/P	3-4/P
3/4" x .035"	19 x 0.90mm						92500	92503
1" x .035"	25 x 0.90mm						92504	92509
1-1/4" x .042"	32 x 1.10mm					92515		92517
1-1/4" x .050"	32 x 1.30mm					92522	92512	
1-1/2" x .050"	38 x 1.30mm			92519	92521	92516		
2" x .063"	50 x 1.60mm			92558	92559	92528		
2-5/8" x .063"	54 x 1.30mm	92560			92561	92530		
3-1/8" x .063"	79 x 1.60mm	92562	92531		92563			

3/4" to 1-1/2" sizes available in 150' (45m) coils. 2" sizes available in 100' (30m) coils. 2-5/8" and larger available in welded bands only. With Exclusive Starrett Structural Tooth Design.





## Advanzis

Advanz $^{\text{\tiny{T}}}$  TS is made for sawing tough materials that bi-metal blades cannot cut.

### **Features:**

- ► Teeth ground from high quality micro-grained carbide cylinders welded to a tough, ductile backing material.
- ▶ Improved carbide to back bonding.
- ► Triple chip tooth geometry.

### **Benefits:**

- ► Extreme resistance to heat and wear.
- ► Smooth surface finish.
- ► Improved strip resistance.
- ► Superior durability.
- ► Advanz™ TS offers exceptional resistance to fatigue, shock and wear.

- ▶ Difficult to machine steels.
- ► High-alloy metals.
- ► Titanium.
- ► Stainless steel.
- ► Inconel.







## Advanz™ CG

Blade Width	x Thickness	Tooth Type and Grit with Material Numbers								
Inch	mm	Gulleted Fine	Gulleted Medium	Gulleted Med/Coarse	Gulleted Coarse	Continuous Medium	Continuous Coarse			
1/4" x .020"	6.5 x 0.50mm	95400	95401							
3/8" x .025"	10 x 0.65mm		95403	95404		95406				
1/2" x .020"	13 x 0.50mm			95413		95414				
1/2" x .025"	13 x 0.65mm		95407	95408		95410				
3/4" x .032"	19 x 0.80mm		95416	95417	95418	95419	95421			
1" x .035"	25 x 0.90mm			95422	95423	95425				
1-1/4" x .035"	32 x 0.90mm				95430		95431			
1-1/4" x .042"	32 x 1.10mm			95432						

All sizes available in 100' (30m) & 250' (76m) coils. Other sizes available upon request. Minimum quantity required.





## Advanz CG

Advanz™ CG easily cut through many hard or abrasive materials that conventional tooth blades won't cut.

## **Features:**

► Tungsten carbide grit bonded to an alloy back.

## **Benefits:**

► Especially useful for cutting complex materials.

- ► Steel-belted tires.
- ► Composite graphite.
- ► Fiber-reinforced plastics.
- ► Case-hardened steels.







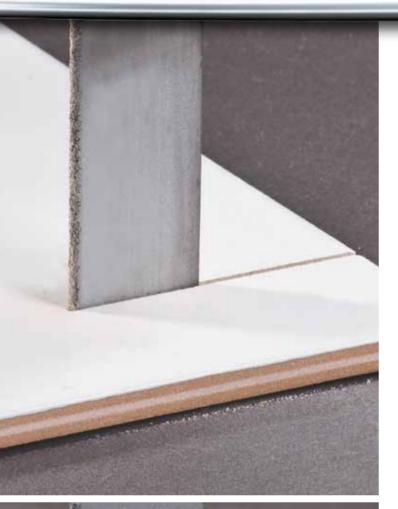


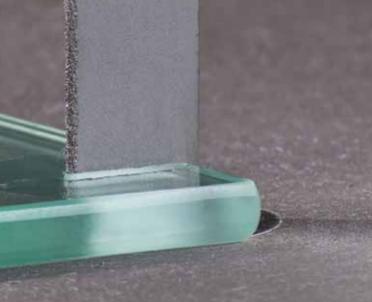
## Advanz™ DG

Blade Width	x Thickness	Grit with Material Numbers				
Inch	mm	Fine Grit Medium 6 85/100 60/85				
1/2" x .020"	6.5 x 0.50mm	95103	95123			

Continuous Diamond Grit available in welded-to-length coils. Other sizes available upon request. Minimum quantity required.







## Advanz DG

## **Features:**

► Dense diamond grit edge.

## **Benefits:**

▶ Ideal for specialized applications involving extremely hard and/or abrasive materials.

- ► Glass-fired ceramics.
- ► Stone.
- ► Silicon.
- ► Laminated fiberglass.









## **Duratec**™ **PH**

Blade Width	Blade Width x Thickness			Blade Pitch, Rake & Tooth Shape with Material Numbers								
Inch	mm	3/P-LP Hook	3/S-K Skip	4/P-HP Hook	4/S-K Skip	6/P-HP Hook	6/S-K Skip	6/S Regular	8/S Regular			
1/4" x .025"	6.5 x 0.65mm			98110	98100	98138	98130	98141				
3/8" x .025"	10 x 0.65mm	98245		98255	98250	98257		98261	98266			
1/2" x .020"	13 x 0.50mm											
1/2" x .025"	13 x 0.65mm		98340	98355	98350	98361		98366				
5/8" x .032"	16 x 0.80mm											
3/4" x .032"	19 x 0.80mm	98509		98514				98531	98550			
1" x .035"	25 x 0.90mm	98652						98661	98670			

All sizes available in 100' (30m) & 250' (76m) coils. 3/8" to 1" sizes available in 500' (152m) coils. P: Positive Rake. S: Straight (Zero) Rake. LP: Low Profile. HP: High Profile. K: Skip.

Blade Width	Blade Pitch, Rake & Tooth Shape with Material Numbers								
Inch	mm	10/S Regular	10/W Regular	14/S Regular	14/W Regular	18/W Regular	24/W Regular	32/W Regular	
1/4" x .025"	6.5 x 0.65mm	98151		98171		98180	98205	98210	
3/8" x .025"	10 x 0.65mm	98271		98301		98310			
1/2" x .020"	13 x 0.50mm	98369		98379		98398	98430		
1/2" x .025"	13 x 0.65mm	98370	98375	98381	98386	98400	98450		
5/8" x .032"	16 x 0.80mm	98470		98481					
3/4" x .032"	19 x 0.80mm	98580	98590	98617	98621	98630			
1" x .035"	25 x 0.90mm	98675		98686					

All sizes available in 100' (30m) & 250' (76m) coils. 3/8" to 1" sizes available in 500' (152m) coils. S: Straight (Zero) Rake. W: Wavy Set, Zero Rake.



## Duratec PH

This high carbon steel band has precisely hardened teeth, coupled with a tough, spring tempered back, resulting in high tensile strength.

## **Features:**

- ► Spring tempered back.
- ► Precisely hardened teeth.

## **Benefits:**

- ► Increased tensile strength allows for greater band tension.
- ▶ Improved rigidity for increased cutting rates.
- ► More accurate cuts.
- ► Economical production cutting.

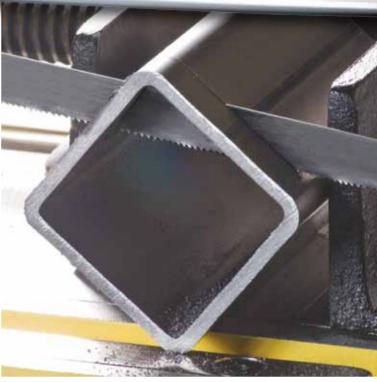
## **Applications:**

► Low alloy, nonferrous metals.









## **Duratec**<sup>™</sup> FB

Blade Width	x Thickness	Blade Pitch, Rake & Tooth Shape with Material Numbers													
Inch	mm	WP-1-1/4/P Bearcat	2/P-LP Hook	3/S-K Skip	WP-3/P-HP Hook	3/P-LP Hook	4/P-HP Hook	4/S-K Skip	WP-4/P-HP Hook	WP-4/S-K Skip	6/S Regular	6/S-K Skip	6/P-HP Hook	8/S Regular	10/S Regular
1/8" x .025"	3 x 0.65mm														
3/16" x .014"	4.8 x 0.35mm													91083	
3/16" x .025"	4.8 x 0.65mm							91080							91090
1/4" x .014"	6.5 x 0.35mm											91135			
1/4" x .025"	6.5 x 0.65mm						91130	91120			91151	91140	91147		91161
1/4" x .032"	6.5 x 0.80mm								91920						
3/8" x .014"	10 x 0.35mm											91254			
3/8" x .025"	10 x 0.65mm					91230	91250	91240			91261		91264	91271	91281
3/8" x .032"	10 x 0.80mm				91930				91940						
1/2" x .020"	13 x 0.50mm														91375
1/2" x .025"	13 x 0.65mm				91948	91330	91350	91340			91361		91373		91380
1/2" x .032"	13 x 0.80mm				91950				91960	91965					
5/8" x .032"	16 x 0.80mm														91450
3/4" x .032"	19 x 0.80mm			91510		91515	91528				91531		91542	91550	91570
1" x .035"	25 x 0.90mm		91670	91680		91689					91701			91720	91730
1-1/4" x .042"	32 x 1.10mm	91990													

1/8" available in 100' (30m) coils only. 3/16" to 3/8" sizes available in 100' (30m) & 250' (76m) coils. 3/8" and larger sizes available in 100' (30m), 250' (76m) & 500' (152m) coils. P: Positive Rake. S: Straight (Zero) Rake. W: Wavy Set, Zero Rake. LP: Low Profile. HP: High Profile. K: Skip. WP: Woodpecker.



10/W Regular	14/S Regular	14/W Regular	14/S-K Skip	18/S Regular	18/W Regular	24/W Regular	32/W Regular
	91050			91060			
	91098						
	91100						
	91178						
	91181				91190	91204	91210
	91288						
	91291				91300	91307	
	91396				91415	91423	
91390	91401	91411			91420	91430	
	91471						
91590	91621						
	91761						

## Duratec FB

Made from carbon steel with a flexible back, Duratec™ FB is ideal for economical cutting on easy-to-machine ferrous or nonferrous metal and wood.

## **Features:**

- ► Flexible carbon steel back.
- ► Wide range of widths, thickness and pitches.

### **Benefits:**

- ► Ability to be run at higher band speeds.
- ► Economical general purpose cutting.
- ▶ Ideal for both contour & straight cutting.

- ► Wood, plastics.
- ► Nonferrous foundry materials.
- ► Low alloy and nonferrous metals.
- ► Furniture, composition board.
- ▶ Light vertical and horizontal machines.





Thin Gage (.01						
Fits Machine Models	<b>-</b>		Pitch & Rake*	Catalog No.	EDP No.	
		3/16"	Regular	8/S	K60270	60270
Black & Decker 74-480 & 9422	52-3/4" (4' 4-3/4")	1/4"	Skip	6/S	K60252	60252
	(,		Regular	14/S	K60335	60335
Shopcraft T676020,		3/16"	Regular	8/S	K60271	60271
10" Craftsman VS				14/S	K60249	60249
24453 and Single Speed 24460,	57"	1/4"	Skip	6/S	K60270	60270
Shopcraft and	(4′ 9″)		Regular	14/S	K60336	60336
Duracraft VS312 & BBS412		3/8"	Skip	6/S	K60264	60264
DD0+12			Regular	14/S	K60267	60267
	59-1/2" (4' 11-1/2")	3/16"	Regular	8/S	K60272	60272
Black & Decker 9411, ToolKraft				14/S	K60250	60250
4500 & 4502, King		1/4"	Skip	6/S	K60254	60254
Feng Fu, Pro-Tech 9", Ryobi BS900			Regular	14/S	K60337	60337
and Delta 28-150		3/8"	Skip	6/S	K60265	60265
			Regular	14/S	K60268	60268
Skil 3104,		3/16"	Regular	8/S	K60273	60273
Craftsman				14/S	K60251	60251
9HT2442N, Alltrade 1996B3R, Rexon	62" (5' 2")	1/4"	Skip	6/S	K60255	60255
BS-12 and	(0 - )		Regular	14/S	K60338	60338
Walker-Turner 10"		3/8"	Regular	14/S	K60269	60269

S: Straight (Zero) Rake

Fits Machine Models	Inches/Feet	Inches	Shape	Rake*	No.	No.			
Wells 57, Emerson 10-1455 &		1/2"	Regular	10/S	K60312	60312			
10-1451, Ridgid 945, Sprunger BS-45, Shopcraft T7070 and	64-1/2" (5' 4-1/2")			14/W	K60322	60322			
Ohio Forge 510-505	(0/_ /			18/W	K60331	60331			
Rockwell 28-140 & 28-120,		3/16"	Regular	14/S	K60280	60280			
Craftsman 9HT2444N, Ryobi BS-50N, Sprunger 10, Inca 310,	72-5/8"	1/4"	Skip	6/S	K60283	60283			
Wilton 3130, Skil HD3640 and	(6′ 5/8″)		Regular	10/S	K60287	60287			
10" Dremel 1120		3/8"	Regular	14/S	K60299	60299			
		3/16"	Regular	14/S	K60281	60281			
		1/4"	Skip	6/S	K60284	60284			
			Regular	10/S	K60288	60288			
0 (1 01) 70 400 10	00"			24/W	K60292	60292			
Craftsman 9HT2433N & 9HT23331N, Boice-Crane 800	80" (6' 8")	3/8"	Regular	6/S	K60296	60296			
,	( /			14/S	K60300	60300			
				24/W	K60304	60304			
		1/2"	Skip	4/S	K60306	60306			
			Regular	6/S	K60308	60308			
Johnson (Kysor) B.M.	89" (7' 5")	1/2"	Regular	10/W	K60314	60314			
Johnson B, M, MB-1, Kalamazoo 610, 7A, Lenox Mobile Mitre,				14/W	K60325	60325			
Startrite 30T				18/W	K60332	60332			
Boice Crane 800-14; Ellis 908 Heston & Anderson 50	90" (7' 6")	1/2"	Regular	14/S	K60326	60326			
Tiestoii & Ailueisoii 30	(1 0)	0/40"	D 1	1.10	1/00000	22222			
		3/16"	Regular	14/S	K60282	60282			
Delta 14 & 28285 & 28230,		1/4″	Skip	6/S	K60285	60285			
Duracraft Sprunger 14 Gator 712, Grob S14			Regular	10/S	K60290	60290			
Rockwell 28-230, 28-240,				24/W	K60293	60293			
28-243, 28-283, 028-285, Ohio Forge 510-556,		3/8"	Regular	6/S	K60297	60297			
14" Rikon 10-320,	93 1/2" (7' 9-1/2")			14/S	K60301	60301			
14" Jet, 14" Enlon,	(1 9-1/2)			24/W	K60015	60015			
14" Elephant, 14" Reliant, 14" Grizzley, Ridgid BS1400		1/2"	Skip	4/S	K60307	60307			
ToolKraft 4512, 4514			Regular	6/S	K60309	60309			
Wellsaw 58B (Wells) Yates American W14				10/S	K60317	60317			
				14/S	K60329	60329			
				18/W	K60334	60334			
Boice-Crane 2300-14, Ensley E-400, Montgomery Ward and Wells 5, Johnson (Kysor) V-14	98" (8' 2")	1/2"	Regular	10/S	K60318	60318			
	S: S	traight (7	ero) Rake	W: Wa	W: Wavy Set. Zero Rake				

Standard Gage (.025") Blades for Stationary Machines

Length Width Tooth Pitch & Catalog EDP

S: Straight (Zero) Rake W: Wavy Set, Zero Rake



## Duratec FB

Flex-Back Ready-To-Use Welded Band Saws

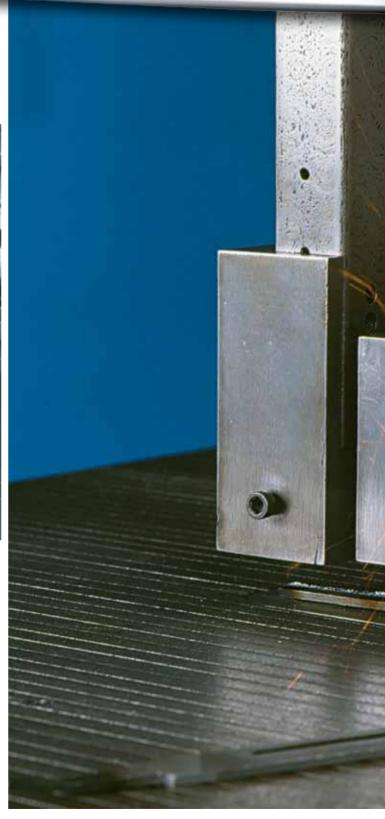
## **Single Blade Retail Packaged**

Band saw blades are display packed, 1 per blister card, with information printed in English, Spanish and French. Ideal for "do-it-yourself" wood and metal cutting applications. Sizes other than listed are also available, welded to order.









## **Duratec**<sup>™</sup> **FC**

Blade Width	x Thickness	Pitch, Rake & Set with Material Numbers				
Inch	mm	8/S Alternate Set	10/S Regular Set			
1" x .035"	25 x 0.65mm	91726	91740			

Available in 100' (30m), 250' (76m) & 500' (152m) coils. S: Straight (Zero) Rake.



## Duratec FC

Duratec™ FC is made of a special fatigue-resistant material with high silicon-content alloy.

#### **Features:**

- ► Special set design for increased frictional heat.
- ► Special silicon alloy.
- ► Special "air scoop" design teeth.
- ► Fully hardened teeth and tempered back.

### **Benefits:**

- ➤ Ability to run at speeds up to 15,000 SFPM to achieve the melting point of the thin, ferrous sections it is designed to cut.
- ► Teeth specifically designed to bring oxygen into the cut to burn up the material.

### **Applications:**

► Thin ferrous sections up to 5/8" thick.





### **Woodpecker<sup>™</sup> Premium**

Blade Width	x Thickness		Blade Pi	tch, Rake & 1	ooth Shape v	vith Material	Numbers	
Inch	mm	1.1/P Hook	1.3/P Hook	2/P Hook	3/P Hook	4/P Hook	5-8/S Regular	6/S-K Skip
1/4" x .020"	6 x 0.50mm					91991		91992
3/8" x .022"	10 x 0.55mm					91996		
1/2" x .022"	13 x 0.55mm					92001		92002
5/8" x .022"	16 x 0.55mm				92003	92004		
3/4" x .022"	19 x 0.55mm					92006		
3/4" x .028"	19 x 0.65mm				92007			
1" x .023"	25 x 0.58mm	92008	92009	92032	92010			
1" x .028"	25 x 0.65mm	92011	92012	92033				
1" x .035"	25 x 0.90mm		92035	92036				
1-1/4" x .028"	32 x 0.65mm	92014						
1-1/4" x .035"	32 x 0.90mm		92043	92044				
1-1/4" x .042"	32 x 1.10mm	92017	92018	92045			92046	
1-1/2" x .042"	38 x 1.10mm	92022	92023					
2" x .042"	50 x 1.10mm	92026						
2-9/16" x .042"	65 x 1.10mm	92030						

All sizes available in 250' (76m) coils. P: Positive Rake. S: Straight (Zero) Rake. K: Skip.

### Woodpecker XF™

Blade Width	x Thickness	Blade Pitch, Rake & Tooth Shape with Material Numbers									
Inch	mm	2/P Hook	3/P Hook	3/P-LP Hook	3/P-HP Hook	3/S-K Skip	4/P Hook	4/P-HP Hook	4/S-K Skip	6/P-HP Hook	6/S-K Skip
1/4" x .014"	6.5 x 0.35mm										91135
1/4" x .020"	6.5 x 0.50mm						91991				91992
1/4" x .032"	6.5 x 0.80mm							91920			
3/8" x .014"	10 x 0.35mm										91254
3/8" x .022"	10 x 0.55mm								91996		
3/8" x .025"	10 x 0.65mm							91250	91240	91264	
3/8" x .032"	10 x 0.80mm				91930			91940			
1/2" x .022"	13 x 0.55mm						92001				
1/2" x .032"	13 x 0.80mm							91960	91965		
5/8" x .022"	16 x 0.55mm		92003				92004				
3/4" x .022"	19 x 0.55mm						92006				
3/4" x .028"	19 x 0.65mm		92007								
3/4" x .032"	19 x 0.80mm			91515		91510		91528		91542	
1" x .023"	25 x 0.58mm	92032	92010								
1" x .028"	25 x 0.65mm	92033									
1" x .035"	25 x 0.90mm	92036									
1-1/4" x .035"	32 x 0.90mm	92044									
1-1/4" x .042"	32 x 1.10mm	92045									

 $All \ sizes \ available \ in \ 100' \ (30m) \ \& \ 250' \ (76m) \ coils. \ All \ sizes \ except \ 91135, \ 91920 \ \& \ 91254 \ available \ in \ 500' \ (152m) \ coils.$ 

P: Positive Rake. S: Straight (Zero) Rake. K: Skip. LP: Low Profile. HP: High Profile.





### Woodpecker Premium

A selection of ground tooth blades ideal for a variety of woodworking applications. Includes blades as thin as .020" for jobs such as contour cutting fine hardwoods to thicker blades for tough tasks including pallet work.

#### **Features:**

- ► Hardened spring tempered back.
- ▶ Ground, precision set teeth with positive tooth angles.
- ► Thin kerf available.

### **Benefits:**

- ▶ Longer life and faster cutting with less feed.
- ▶ High production rates and increased yields.
- ► Can be re-sharpened.

### **Applications:**

► Grade lumber, re-saws, pallet manufacturing.

### Woodpecker XF

A selection of blades ideal for sawing furniture and woodworking products. Woodpecker XFTM blades are available as thin as .014".

### **Features:**

- ► Flexible carbon steel back.
- ▶ Ground, induction hardened teeth in a variety of pitches.

### **Benefits:**

- ► Great fatigue factor on machines running higher blade speeds.
- ► Cost effective sawing with less material loss.





















### **Applications:**

- ► Cabinet/furniture making.
- ► Contour cutting.

**PRODUCTS** 







Blade Width	x Thickness	Pitch, Rake Material	& Set with Numbers
Inch	mm	4/P Hook	6/S-K Skip
5/8" x .018"	16 x 0.46mm	94314	94315

 $\begin{array}{l} \mbox{Available in 100' (30m), 250' (76m) \& 500' (152m) coils.} \\ \mbox{P: Positive Rake.} \quad \mbox{S: Straight (Zero) Rake.} \quad \mbox{K: Skip.} \end{array}$ 

### **Meatkutter™ Stainless**

Blade Width x Thickness		Pitch, Rake & Set with Material Numbers		
Inch	mm	4/P Hook 6/S-K Ski		
5/8" x .018"	16 x 0.46mm	94321	94322	

 $\begin{array}{l} \mbox{Available in 100' (30m), 250' (76m) \& 500' (152m) coils.} \\ \mbox{P: Positive Rake.} \quad \mbox{S: Straight (Zero) Rake.} \quad \mbox{K: Skip.} \end{array}$ 





## Meatkutter

For meat, fish and poultry band saw machines, these blades are .018" thick, so they produce minimal meat loss.

#### **Features:**

- ➤ Meatkutter blades are offered in a choice of special steel or clean-cut stainless steel. Both offer the high levels of hygiene required for cutting meat, fish and poultry.
- ► Tooth shape is skip.
- ► The teeth are ground.

### **Benefits:**

► Stainless steel blades can be washed down without risk of rusting.

### **Applications:**

- ► Food industry.
- ► Butcher.
- ▶ Catering
- ► Meat packers.







### **Band Knives**

Blade Width	x Thickness	Edge & Bevel with Material Numbers			ers
Inch	mm	Scallop, Double Bevel 1/2" (13mm)	Wavy, Double Bevel 3/4" (19mm)	Straight, Double Bevel	Straight, Single Bevel
3/8" x .022"	10 x 0.56mm	93126			
1/2" x .018"	13 x 0.46mm	93188			
1/2" x .022"	13 x 0.56mm	93189	93388	93160	93135
3/4" x .022"	19 x 0.56mm	93637	93715	93609	
3/4" x .028"	19 x 0.71mm	93629	93717		
1" x .025"	25 x 0.65mm	93806		93794	
1" x .035"	25 x 0.89mm	93809	93912	93796	

All sizes available in 100  $^{\prime}$  (30m) coils.





## Band Knives

#### **Features:**

- ► Razor-edge band knives.
- ► Single or double edge bevel.
- ► Straight, scallop or wavy cutting edges.

### **Benefits:**

- ► Slicing action produces no chips.
- ► Easily cut foam, paper, rubber, soft plastic and other fibrous material quickly, smoothly and without waste.

### **Applications:**

- ► Foam.
- ► Rubber.
- ► Cork.
- ► Cardboard and paper.
- ► Soft plastic.



### **Portable Band Saw Blades**

Spe	Specifications: Univerz™ Blades			3-Blade	Sleeve	100 Bla	de Box
Fits Machine Models	Length	Width x Thickness	Pitch & Rake*	Catalog No.	EDP No.	Catalog No.	EDP No.
			10/S	BM10	14600	BM10B	16948
Black & Decker, Greenlee,			14/S	BM14	14601	BM14B	16949
Milwaukee,	44-7/8" or 3' 8-7/8"	1/2" x .020" (13 x 0.50mm)	18/W	BM18	14602	BM18B	16950
Ridgid, Rockwell,	(114cm)		24/W	BM24	14603	BM24B	16951
Porter-Cable,			10-14/S	BM1014	15708	BM1014B	16952
Skil, Unitec			14-18/W	BM1418	16088	BM1418B	16953
			10/S	RBM10	14604	-	-
			14/S	RBM14	14605	-	-
Greenlee,	53-3/4" or 4' 5-3/4"	1/2" x .020"	18/W	RBM18	14606	-	_
Porter-Cable, Rockwell	(136.5cm)	(13 x 0.50mm)	24/W	RBM24	14607	-	-
			10-14/S	RBM1014	15709	-	-
			14-18/W	RBM1418	16089	-	-

<sup>\*</sup> S = Straight (Zero) Rake W = Wavy Set, Zero Rake

Specifications: Advanz™ CG Blades					m Grit
Fits Machine Models	Length	Width x Thickness	Tooth Type	Catalog No.	EDP No.
Black & Decker, DeWalt, Greenlee, Makita, Unitec,	44-7/8" or 3' 8-7/8"	1/2" x .020"	Gulleted	CG4GM	19956
Porter-Cable, Ridgid, Rockwell, Skil, Milwaukee	(114cm)	(13 x 0.50mm)	Continuous	CG4CM	19954

Specifications: Carbon & Bi-Metal Blades			Intenss™ PRO-DIE Porta-Band 3-Blade Sleeve Box of 100				
Fits Machine Models	Length	Width x Thickness	Pitch & Rake*	Catalog No.	EDP No.	Catalog No.	EDP No.
DI 1 0 D 1		10/S 14/S 1/2" x .020" (13 x 0.50mm) 24/W	10/S	-	_	-	-
Black & Decker, Greenlee,			14/S	CBM14	19412	CBM14B	19639
Milwaukee,	44-7/8" or 3' 8-7/8"		18/W	CBM18	19413	CBM18B	19640
Ridgid, Rockwell,	(114cm)		24/W	CBM24	19414	CBM24B	19641
Porter-Cable,			10-14/S	CBM1014	19415	CBM1014B	19642
Skil, Unitec			14-18/W	CBM1418	19416	CBM1418B	19643

<sup>\*</sup> S = Straight (Zero) Rake W = Wavy Set, Zero Rake





## Portable Band Saw Blades

Five Starrett blade types are offered for these convenient power tools. Many blades are welded, ready to go to work in convenient lengths to fit popular portable machines.

### **The Starrett Edge**

- ► Univerz<sup>TM</sup>: These blades utilize Starrett's exclusive bi-metal unique® saw technology for faster cutting and longer blade life.
- ► Intenss<sup>™</sup> PRO-DIE: A good bi-metal band saw blade for fast cutting of abrasive materials, tool and stainless steels.
- ► Advanz<sup>™</sup> CG: These band saw blades will easily cut through most hard and abrasive materials.



### **Bi-Metal HSS Power Hacks**

Length x Widtl				
Inch	mm	TPI	Cat. No.	EDP No.
12" x 1-1/8" x .050"	300 x 29 x 1.25mm	10	BS1210-5	40097
12 X 1-1/0 X .030	300 X 29 X 1.2311111	14	BS1214-5	40098
14" x 1-1/8" x .050"	350 x 29 x 1.25mm	10	BS1410-5	40099
14 X 1-1/6 X .030	330 X 29 X 1.2311111	14	BS1414-5	40100
14" x 1-3/8" x .062"	350 x 35 x 1.60mm	6	BS1406-6	40101
14 X 1-3/0 X .002	330 X 33 X 1.00111111	10	BS1410-6	40102
14" x 1-5/8" x .075"	350 x 41 x 2mm	6	BS1406-7	40105
17" x 1-3/8" x .062"	425 x 35 x 1.60mm	6	BS1706-6	40264
17 X 1-3/0 X .002		10	BS1710-6	40265
18" x 1-3/8" x .062"	450 05 4 .00	6	BS1806-6	40267
10 X 1-3/0 X .002	450 x 35 x 1.60mm	10	BS1810-6	40268
18" x 1-5/8" x .075"	450 x 41 x 2mm	4	BS1804-7	40272
10 X 1-3/0 X .073	450 X 41 X 2111111	6	BS1806-7	40273
18" x 1-7/8" x .088"	450 x 48 x 2.25mm	4	BS1804-8	40275
10 X 1-7/0 X .U00	450 X 40 X 2.25111111	6	BS1806-8	40276
21" x 1-7/8" x .088"	525 x 48 x 2.25mm	4	BS2104-8	40278
Z1 X 1-1/8" X .U88"	323 X 40 X 2.2311111	6	BS2106-8	40279
24" x 2-1/8" x .100"	600 x 54 x 2.50mm	3	BS2403-0	40131
24 X 2-1/0 X .100°	000 X 34 X 2.30IIIIII	4	BS2404-0	40282

.281" (7.00mm) pinhole diameter for saws to 1-7/8" width, and .390" (10.00mm) for wider saws. Blades packaged and sold 10 blades per box.

### **Tooth Pitch (TPI) Guide For All Power Hacksaws\***

Cross Section	Cross Section To Be Cut				
Inch	mm	Pitch			
1.5" (and above)	38mm (and above)	2			
1" to 3"	25 - 75mm	3			
3/4" - 2-1/2"	19 - 63mm	4			
1/2" - 1-1/2"	13 - 38mm	6			
5/16" - 1"	8 - 25mm	10			
7/32" - 3/4"	6 - 19mm	14			
3/16" - 1/2"	5 - 13mm	18			

\*NOTE: Because of the wide overlap, use coarser pitches for faster cutting and finer pitches for smoother cutting.









## Bi-Metal HSS Power Hacks

These power hacksaw blades are ideal for tough materials and conditions of all types. The cutting edge of high-speed steel gives it excellent cutting efficiency and the tough alloy steel back resists breakage, even under less than ideal conditions.

### **Features:**

- ► Hardened & tempered high-speed steel teeth.
- ► Tough alloy steel back.

### **Benefits:**

- ► Unparalleled cutting efficiency.
- ► Alloy back resists breakage under the most adverse conditions.

### **Applications:**

► Handles irregular shapes and interrupted cuts with ease.



### Redstripe® HSS Power Hacks for KASTO and other metric sized machines

Length x Widt	h x Thickness			
mm	Inch	TPI	Cat. No.	EDP No.
300 x 32 x 2mm	12" x 1-1/4" x .075"	6	RS300-6	16168
300 X 32 X 2111111	12" X 1-1/4" X .0/5"	10	RS300-10	16169
050 v 00 v 0mm	14" > 1 1/4" > 075"	6	RS350-6	40177
350 x 32 x 2mm	14" x 1-1/4" x .075"	10	RS350-10	40178
		4	RS400-4	40179
400 x 32 x 2mm	16" x 1-1/4" x .075"	6	RS400-6	40180
		10	RS400-10	40181
		4	RS450-4	40182
450 x 38 x 2mm	18" x 1-1/2" x .075"	6	RS450-6	40183
		10	RS450-10	40184
		4	RS500-4	16170
500 x 45 x 2mm	20" x 1-3/4" x .075"	6	RS500-6	16171
		10	RS500-10	16172
		4	RS550-4	40173
550 x 45 x 2mm	22" x 1-3/4" x .075"	6	RS550-6	40174
		10	RS550-10	40185
575 x 50 x 2.5mm	23" x 2" x .100"	4	RS575-4	40175
575 X 50 X 2.5111111	23 X Z X . 100	6	RS575-6	40176
600 x 50 x 2mm	24" x 2" x .100"	4	RS600-4	16173
OUU X OU X ZIIIIII	24 X 2 X . 100	6	RS600-6	16174
650 x 56 x 2.5mm	26" x 2-3/16" x .100"	4	RS650-4	40186
000 X 00 X 2.0111111	20 X 2-3/10 X .100	6	RS650-6	40187
700 x 55 x 2.5mm	28" x 2-3/16" x .100"	4	RS700-4	40188
700 X 33 X 2.311111	20 X 2-3/10 X .100	6	RS700-6	40189
850 x 60 x 3mm	34" x 2-3/8" x .118"	4	RS850-4	16175
OOU X OU X OIIIII	34 X Z-3/0 X .118"	6	RS850-6	16176
900 x 114 x 305mm	36" x 4-1/2" x .138"	2-1/2	RS900-2-1/2	68716
1000 x 126 x 3.5mm	40" x 5" x .138"	2-1/2	RS1000-2-1/2	16177

### Redstripe® HSS Power Hacks

Length x Width x Thickness				
Inch	mm	TPI	Cat. No.	EDP No.
10" × 1" × 050"	300 x 25 x 1.25mm	10	RS1210-5	40046
12" x 1" x .050"	300 X 25 X 1.25111111	14	RS1214-5	40047
14" x 1" x .050"	350 x 25 x 1.25mm	10	RS1410-5	40049
14 X 1 X .050	350 X 25 X 1.25111111	14	RS1414-5	40050
14" x 1-1/4" x .062"	350 x 32 x 1.60mm	6	RS1406-6	40051
14 X 1-1/4 X .002	330 X 32 X 1.00111111	10	RS1410-6	40052
14" x 1-1/2" x .075"	350 x 38 x 2mm	6	RS1406-7	40054
16" x 1-1/4" x .062"	425 x 32 x 1.50mm	6	RS1606-6	40057
10 X 1-1/4 X .002	425 X 32 X 1.5011111	10	RS1610-6	40058
17" x 1" x .050"	425 x 25 x 1.25mm	10	RS1710-5	40059
17 X 1 X .030		14	RS1714-5	40060
17" x 1-1/4" x .062"	425 x 32 x 1.50mm	6	RS1706-6	40062
17 X 1-1/4 X .002	423 X 32 X 1.3011111	10	RS1710-6	40063
18" x 1-1/4" x .062"	450 x 32 x 1.60mm	6	RS1806-6	40064
10 X 1-1/4 X .002	430 X 32 X 1.0011111	10	RS1810-6	40065
18" x 1-1/2" x .075"	450 x 38 x 2mm	4	RS1804-7	40067
10 X 1-1/2 X .0/3	430 X 30 X 211111	6	RS1806-7	40068
18" x 1-3/4" x .088"	450 x 45 x 2.25mm	4	RS1804-8	40070
10 X 1-3/4 X .000	430 X 43 X 2.2311111	6	RS1806-8	40071
21" x 1-3/4" x .088"	525 x 45 x 2.25mm	4	RS2104-8	40075
21 X 1-3/4 X .000	J2J A 4J A 2.2JIIIII	6	RS2106-8	40076
24" x 2" x .100"	600 x 50 x 2.50mm	4	RS2404-0	40081
30" x 2-1/2" x .100"	750 x 63 x 2.50mm	4	RS3004-0	40083



## Redstripe Power Hacks

### **Features:**

- ► Fully hardened molybdenum high-speed steel.
- ► Available in a wide array of lengths, widths and pitches.
- ► Sizes for Kasto and other metric sized machines.

### **Benefits:**

- ▶ Delivers extended life and efficient cutting performance in a wide range of materials.
- ► Withstands heavier feed pressures.
- ▶ Provides faster cutting than composite blades.

### **Applications:**

► Tough-to-cut alloy steels such as stainless.



### POCKET LASER TACHOMETER KIT WITH CASE

### Cat. No. S7793Z • EDP No. 68930

The Pocket Laser Tachometer is a digital, battery-powered portable optical tachometer that can operate up to 25 feet from a reflective target using a laser light source.

This powerful 32 function Tachometer/ Ratemeter, Totalizer/Counter and Timer is programmable in both inch and metric rates.

It has TTL compatible pulse output to trigger devices such as data collectors or strobocopes. Ergonomic design makes measurement of speed and RPM simple.

### **RANGE**

**Optical:** 5 to 200,000 RPM **Contact:** 0.5 to 20,000 RPM

Accuracy: Optical: ±0.01% of reading

Contact: ±0.05% of reading

**Kit includes:** Tachometer, RCA, contact tips, 10cm linear contact wheel, 5' of T-5 reflective tape, (2) AA batteries,

carrying case



### **SAW TENSION GAGE**

#### Cat. No. 682EMZ • EDP No. 57075

The Saw Tension Gage will check for proper blade tension in either English or metric, and is graduated both in pounds and kilograms.

The tension gage can be read directly on either band saws of any type, or power hacksaws.

It is graduated to read up to 60,000 PSI or 4,000kg per cm<sup>2</sup> and is furnished with instructions, including suggested tensions.

### BAND SAW BLADE ALIGNMENT GAGE

### Cat. No. PT92925 • EDP No. 65049

The alignment of your band saw blade is a key factor to guarantee blade life and accuracy with Starrett Band Saw Blades. This gage enables you to make sure your blade is running square to the cut.





### 187 SLIDE CHART FOR BAND SAW SELECTION AND OPERATING GUIDE

Our popular band saw slide chart selection and operating guide includes a wealth of useful information printed on both sides

This slide chart recommends the pitch suitable for the cross section to be cut as well as surface feet per minute speed plus the optimum cutting rate. This tool was developed by our R & D group from actual tests.

### 193 CUTTING RATE SELECTION CHART

This cutting rate selection chart is a heavy-weight, laminated, two sided sheet with a chain for easy attachment to a band saw machine. It also includes recommended tension for Starrett band saw blades and a quick reference troubleshooting table.





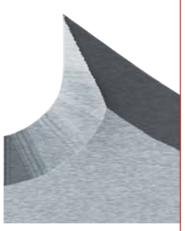


### **FLASH WELDERS**

Save money while adding convenience. Now you can do your own top quality welds on your band saw blades, the way you want it and when you want it, while making your sawing operation more profitable. Starrett Flash Welders are first-rate

performers - workhorses that will help you in many ways:

- ► Eliminate costly, time-consuming outsourcing of welds.
- ► Eliminate the need for excessive inventories of custom length blades you simply stock coils at the lower cost.
- ► Get the blade you need right away.
- ► SW Series Welders include a built-in water cooled system, necessary on welders with anneal control.
- ► These welders use a lower voltage for a longer period of time than manual annealing, causing more heat to conduct in the jaws and carriages.



NEW BLADE WITH RAZOR SHARP TEETH



TOOTH CORRECTLY BROKEN IN



TOOTH INCORRECTLY BROKEN IN

### **BLADE BREAK-IN**

Using the right break-in procedures for a bimetal blade assures longer blade life, faster cuts for a longer period of time and consistent performance. Conversely, blade life can be significantly compromised if the proper break-in procedures are not followed.

### **LONGER BLADE LIFE**

The teeth on a new band saw blade are razor sharp. To withstand the cutting pressures of band sawing, the tip of each tooth should be honed to create an extremely small radius on its tip.

### Easy-to-cut material such as carbon steel and aluminum:

- A. Run the normal surface feet per minute (SFPM).
- B. Adjust the feed pressure to about one-half the normal cutting rate for the first few cuts or for 50-100 square inches (323-645 sq.cm).
- C. Increase to the normal cutting rate.
- D. Avoid vibration.

### Hard-to-cut materials such as nickel-based alloys like inconel, hardened steels,tool steels and stainless steels:

- A. Run the normal surface feet per minute (SFPM).
- B. Adjust the feed pressure to about threequarters of the normal cutting rate for the first few cuts or for 25-75 square inches (161-484 sq.cm).
- C. Then increase the cutting rate part way to normal for the next few cuts.
- D. Then increase to the normal cutting rate.
- E. Avoid vibration.

### **BAND SAW SERVICE & SUPPORT**

Starrett service technicians are available to tune up and perform preventative maintenance on your production sawing machine using Starrett Band Saw Blades, at no additional cost. They fully review machine condition, blade mounting and operation in detail, making adjustments, as required, to help maintain good sawing and long life for both the machine and blades.

### **TRAINING**

Starrett service technicians can also instruct saw operators on achieving the best performance of blade and machine for your applications. Contact your Starrett Band Saw distributor about arranging a visit to your workplace by a Starrett service technician.



START TO CUT MATERIAL AT REDUCED CUTTING RATE



AFTER BREAK-IN WHEN THE BLADE HAS FULLY ENTERED THE WORK-PIECE, INCREASE THE FEED RATE OVER A SERIES OF CUTS UNTIL THE RECOMMENDED CUTTING RATE IS ACHIEVED

### BAND SAW BLADE INSTALLATION GUIDELINES

Always follow the machine manufacturer's instructions and recommendations for blade changes and the safe operation for the band saw machine. The guidelines are not intended to replace the machine manufacturer's instructions or recommendations. The general information contained in the guidelines is intended to assist in the proper installation of band saw blades. Proper blade installation achieves more efficient blade performance. Please contact your machine manufacturer for appropriate procedures for blade changes for your specific machine and your saw blade manufacturer for appropriate cutting recommendations. The L. S. Starrett Co. nor its employees, shall not be held responsible for the accuracy or completeness of these guidelines.

► Wear gloves when handling band saw blades.



► Wear eye protection, safety shoes, and hearing protection.







#### **FOLLOW INSTRUCTIONS CAREFULLY**

- ► Follow all the safety instructions shown in the band saw machine operator's manual and on the machine labels. Recognize and read safety and warning signs such as **Danger**, **Warning** and **Caution**.
- ► Follow the saw blade installation instructions for the make and model of the band saw machine.

### **BASIC BLADE CHANGE GUIDELINES**

- ► Position saw head to appropriate location to facilitate ease of blade change.
- ► Follow required lock out tag out procedures.
- ▶ Position chip brush away from saw blade.
- ▶ Relieve saw blade tension and remove blade.
- ► Remove any chips from saw guides and band wheels.
- ► Select appropriate blade for cutting application. (Refer to saw blade selection chart)
- ► Unfold blade properly. **Do Not Throw.** Throwing the blade will result in tooth damage that will reduce saw blade performance. (Refer to unfolding procedure)
- ► Install blade with saw teeth pointing in proper direction.



- ► Apply appropriate tension to the blade.
- ► Be aware of pinch points and keep hands and clothing clear of rotating blade.



- ► Adjust guide arms to appropriate positions to workpiece.
- ► Adjust blade guides for proper blade support.
- ► Adjust chip brush to fully engage saw blade teeth to ensure proper chip removal.
- ► Check hydraulic fluid levels if applicable.
- ► Ensure appropriate cutting fluid placement and mix ratios as applicable per machine, cutting fluid, and blade manufacturer's recommendations.
- ► Break in blade properly before reaching desired cutting rates.

RECOMMENDATIONS



Work Material Type	Steel Specification USA (AISI)	Feet per Minute	Meters per Minute	Sq Inch per Minute	Sq cm per Minute
Free Machining Carbon Steels	1211-1215	230 - 310	69 - 93	12 - 18	78 - 117
	1110, 1117-1118	220 - 300	66 - 90	9 - 15	58 - 97
	1137-1151	165 - 245	50 - 74	5 - 11	32 - 71
	1005-1012	220 - 300	66 - 90	9 - 14	58 - 97
Low Carbon Steels	1015-1026	210 - 290	63 - 87	8 - 13	52 - 91
Medium Carbon Steels	1030-1055, A36	140 - 220	42 - 66	5 - 9	32 - 58
High Carbon Steels	1060-1095	120 - 200	36 - 60	5 - 8	32 - 52
	1330-1345	140 - 220	42 - 66	4 - 8	26 - 52
Manusana Charle	1513-1527	220 - 300	66 - 90	8 - 12	52 - 91
Manganese Steels	1536-1552	165 - 245	50 - 74	6 - 10	39 - 65
	1561-1572	120 - 200	36 - 60	5 - 8	32 - 52
	4012-4024	150 - 230	45 - 69	4 - 9	26 - 58
Molybdenum Steels	4030-4042	140 - 220	42 - 66	4 - 8	26 - 52
	4047-4068	130 - 210	39 - 63	4 - 8	26 - 52
	4130-4140	130 - 210	39 - 63	4 - 8	26 - 58
Chrome Moly Steels	4142-4161	120 - 200	36 - 60	3 - 7	20 - 45
	4320	130 - 210	39 - 63	4 - 8	26 - 52
Nickel Chrome Moly Steels	4340	120 - 200	36 - 60	3 - 7	20 - 45
	4615-4626	140 - 220	42 - 66	4 - 8	26 - 52
Nickel Moly Steels	4815-4820	130 - 210	39 - 63	4 - 8	26 - 52
	5040-5060	130 - 210	39 - 63	4 - 8	26 - 52
	5115-5120	150 - 230	45 - 69	5 - 9	32 - 56
Chrome Steels	5130-5160	130 - 210	39 - 63	4 - 8	26 - 52
	50100, 51100, 52100	90 - 160	27 - 48	3 - 5	20 - 32
a. w a	6118	150 - 230	45 - 69	5 - 9	32 - 58
Chrome Vanadium Steels	6150	130 - 210	39 - 63	4 - 8	26 - 52
	8115, 8615-8622, 8720, 8820	130 - 210	39 - 63	5 - 9	32 - 58
	8145, 8625-8637	130 - 210	39 - 63	5 - 9	32 - 58
Nickel Chrome Moly Steels	8640-8660, 8740, 9430-9445	130 - 210	39 - 63	4 - 8	26 - 52
	9310	110 - 190	33 - 57	2 - 4	13 - 26

## **CUTTING TABLE**

Work Material Type	Steel Specification USA (AISI)	Feet per Minute	Meters per Minute	Sq Inch per Minute	Sq cm per Minute
Silicon Steels	9255-9262	130 - 210	39 - 63	4 - 8	26 - 52
Nitriding Steels		140 - 220	42 - 66	3 - 6	20 - 39
	A2-A6, A8-A10	130 - 210	39 - 63	2 - 4	13 - 26
Tool Steels (Air & Oil Hardening)	01, 02, 06, 07	130 - 210	39 - 63	2 - 6	13 - 29
	D2, D3, D7 (CUT DRY)	50 - 100	15 - 30	2 - 3	13 - 20
Carbon Tool Steel	W1-W5	130 - 210	39 - 63	2 - 6	13 - 39
	L2, L6	120 - 200	36 - 60	2 - 6	13 - 39
Special Purpose	S1 - S7	90 - 160	27 - 48	2 - 4	13 - 26
Shock Resistant Hot Work Steel	H10 - H19	130 - 210	39 - 63	2 - 5	13 - 32
	H21 - H42	90 - 160	27 - 48	2 - 4	13 - 26
	M1, M2, M7, M10	75 - 130	22 - 39	2 - 4	13 - 26
	M3, M4, M30 - M47	50 - 100	15 - 30	1 - 3	7 - 20
High Speed Steels	T1, T2, T6	75 - 130	22 - 39	2 - 4	13 - 26
	T4, T5	60 - 120	18 - 36	1 - 3	7 - 20
	T15	50 - 90	15 - 27	1 - 3	7 - 20
Free Machining Stainless	303	75 - 140	22 - 42	2 - 5	13 - 32
Steels	416, 420F, 430F	100 - 180	30 - 54	3 - 6	20 - 39
	201, 202, 301-304, 305, 308	70 - 120	21 - 36	2 - 4	13 - 26
Acceptable Obeleton Observe	321, 347, 348	70 - 120	21 - 36	2 - 4	13 - 26
Austenitic Stainless Steels	A286, 309, 310, 314	50 - 80	15 - 24	1 - 2	7 - 13
	316, 317, 330	50 - 80	15 - 24	1 - 2	7 - 13
Ferritic Stainless	405, 409, 430, 434	60 - 100	18 - 30	1 - 3	7 - 20
Steels	436, 422, 446	60 - 100	18 - 30	1 - 3	7 - 20
Mantanaitia Chaimlean Chaola	403, 410, 420, 422, 501, 502	70 - 130	21 - 39	2 - 4	13 - 26
Martensitic Stainless Steels	440A-C, 414, 431	60 - 100	18 - 30	1 - 3	7 - 20
Precision Hardening Stainless Steels	15-5PH, 17-4PH, 17-7PH	50 - 90	15 - 27	1 - 3	7 - 20
	CLASS 30	120 - 200	36 - 60	8 - 14	52 - 91
	CLASS 40	80 - 160	24 - 48	5 - 11	32 - 71
Cast Iron	DUCTILE 60-40-18 150HB	160 - 240	48 - 72	4 - 10	26 - 65
	DUCTILE 80-55-06 225HB	80 - 160	24 - 48	2 - 7	13 - 45

## **CUTTING TABLE**



Work Material Type	Steel Specification USA (AISI)	Feet per Minute	Meters per Minute	Sq Inch per Minute	Sq cm per Minute
Nickel Alloys	INCONEL 625, 718	30 - 80	9 - 24	0.5 - 1	3 - 7
	X-750, WASPALOY	30 - 80	9 - 24	1 - 2	7 - 13
	INCONEL 600, 601	50 - 90	15 - 27	1 - 3	7 - 20
	MONEL 400, 401	50 - 90	15 - 27	1 - 3	7 - 20
	MONEL K500	30 - 80	9 - 24	1 - 2	7 - 13
	HASTALLOY, RENE41,	30 - 70	9 - 21	0.5 - 1	3 - 7
	RENE 63, 77, 95, 100	30 - 70	9 - 21	0.5 - 1	3 - 7
	99% TITANIUM	50 - 90	15 - 27	0.5 - 2	3 - 13
Titanium Alloys	ALPHA, ALPHA-BETA	30 - 60	9 - 18	0.5 - 1	3 - 7
	ВЕТА	30 - 60	9 - 18	0.5 - 1	3 - 7
Refractory Metal	MOLYBDENUM	60 - 100	18 - 30	0.5 - 1	3 - 7
	TANTALUM	30 - 60	9 - 18	0.5 - 1	3 - 7
	COLOMBIUM	40 - 80	12 - 24	0.5 - 1	3 - 7
	99% COPPER	100 - 180	30 - 54	4 - 9	26 - 58
	FREE CUTTING BRASS	180 - 250	54 - 75	5 - 11	32 - 71
	YELLOW/RED BRASS	175 - 255	53 - 77	4 - 10	26 - 65
	PHOSPHOR BRONZE	90 - 180	27 - 54	4 - 10	26 - 65
Copper Alloys	ALUMINUM BRONZE	125 - 190	37 - 57	4 - 8	26 - 52
	AS ABOVE (HARDENED)	50 - 100	15 - 30	1 - 2.5	7 - 16
	MALLORY 73 AND 100	50 - 100	15 - 30	1 - 2.5	7 - 16
	BERYLLIUM COPPER	120 - 190	36 - 57	3 - 6	20 - 39
	AS ABOVE (HARDENED)	35 - 55	10 - 16	0.5 - 1	3 - 7
	ALLOY	267 - 400	80 - 120		
A I	CAST ALLOY	267 - 400	80 - 120	Please call	Please call
Aluminum	PISTON ALLOY	267 - 400	80 - 120	for assistance	for assistance
	(USE TCT BLADES)	267 - 400	80 - 120		

**NOTE:** These feed rates are a general guide only. Please contact Starrett Technical Support for precise recommendations.

## **CUTTING TABLE**

Dian	neter	Ar	ea
Inches	Centimeters	Square Inches	Square Centimeters
1	2.5	0.8	4.9
1.5	3.8	1.8	11.3
2	5.1	3.1	20
2.5	6.4	4.9	32
3	7.6	7.1	45
3.5	8.9	9.6	62
4	10.2	12.6	82
4.5	11.4	15.9	102
5	12.7	19.6	127
5.5	14	23.8	154
6	15.2	28.3	186
6.5	16.5	33.2	214
7	17.8	38.5	249
7.5	19.1	44.2	287
8	20.3	50.3	324
8.5	21.6	56.7	366
9	22.9	63.6	412
9.5	24.1	70.9	456
10	25.4	78.5	507
10.5	26.7	86.6	560
11	27.9	95.0	611
11.5	29.2	104.0	670
12	30.5	113	731
12.5	31.8	123	794
13	33.0	133	855
13.5	34.3	143	924
14	35.6	154	995
14.5	36.8	165	1064
15	38.1	177	1140
15.5	39.4	189	1219
16	40.6	201	1295
16.5	41.9	214	1379
17	43.2	227	1466
17.5	44.5	241	1555
18 18.5	45.7	254 269	1640
19	47.0 48.3	284	1735 1832
19.5	49.5	299	1924
20	50.8	314	2029
20.5	52.1	330	2132
21	53.3	346	2231
21.5	54.6	363	2341
22	55.9	380	2454
22.5	57.2	398	2570
23	58.4	415	2679
24	61.0	452	2922

### **AREA CALCULATION**

In order to calculate the best cutting progress, you can select an option from the charts below.

### **ATTENTION**

Make all the measurements in centimeters to get the area in cm<sup>2</sup>

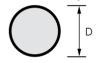
### **SQUARE**

 $area = L^2$ 



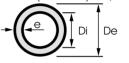
### **ROUND**

area =  $D^2 \times 0.7854$ 



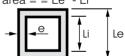
### **ROUND TUBE**

area =  $(De^2 - Di^2) \times 0,7854$ 



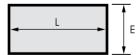
### **SQUARE TUBE**

 $area = Le^2 - Li^2$ 



### **RECTANGULAR**

 $area = E \times L$ 



### **HEXAGONAL**

area =  $\frac{L^2 \times 2,598}{E^2 \times 0,866}$ 





Blade Effect	Probable Cause	Solution
Blade Breakage	Incorrect blade	Check tooth selection
	Band tension too high	Reduce band tension, refer to operator's manual
	Excessive feed	Reduce feed pressure
	Incorrect cutting fluid	Check coolant recommendations
	Wheel diameter too small for blade width	Use narrower blade
	Worn or chipped pressure block	Replace worn pressure blocks
	Blade rubbing on wheel flange	Adjust wheel alignment
Churcimha hungli in dinatan fatimus	Teeth in contact with work before starting saw	Allow blade clearance above work
Straight break indicates fatigue.	Side guides too tight	Refer to operator's manual
<b>Prematurely Dull Teeth</b>	Blade on machine backwards	Install blade correctly
	Improper blade break-in procedure	Refer to recommended procedures
	Hard material or heavy surface scale	Check material hardness and surface condition
at Car	Material is work-hardening	Increase feed pressure
	Improper cutting fluid or mix ratio	Follow coolant mixing procedures
	Speed or feed too high	Check cutting recommendations
Inaccurate Cut	Guide arms too far apart	Adjust guide arms closer to material
	Blade worn out	Replace blade
<b> </b>	Over or under feeding	Check cutting recommendations
5	Improper tooth pitch	Use proper tooth selection
<b>S</b>	Cutting fluid not applied properly	Adjust coolant nozzles
<b>3</b>	Too many teeth for material cross section	Use proper tooth selection
	Guides worn or loose	Tighten or replace guides
<b>Band Leading in Cut</b>	Over feeding	Check cutting recommendations
	Low band tension	Refer to operator's manual
	Tooth set damaged	Check material hardness
	Guide arms loose or space too wide	Adjust guides and guide arms
Chip Welding	Worn or missing chip brush	Replace or adjust chip brush
	Improper or lack of cutting fluid	Check coolant flow and fluid type
hand dans	Wrong coolant ratio	Check coolant type and ratio
	Excessive feed or speed	Reduce feed or speed
	Incorrect blade pitch	Use proper tooth selection
Teeth Fracturing - Back	Saw guides not properly adjusted	Align or adjust saw guides
	Incorrect feed or speed	Refer to cutting recommendations
100000	Incorrect blade	Use proper blade type and pitch
	Material moved in vise	Inspect and adjust vise
Back of tooth indicates spinning in vise.		
Irregular Break	Indexing while blade in work	Adjust index sequence
oga.a. Dioun	Blade not high enough before index	Adjust height selector
mm	Saw head drifts into work while neutral	Check hydraulic cylinder
Indicates material movement.		

## TROUBLESHOOTING

Blade Effect	Probable Cause	Solution
Teeth Stripping	Improper blade break-in procedure	Follow proper break-in procedure
Teeth Stripping	Speed too slow	Refer to cutting recommendations
	Feed pressure too high	Reduce feed pressure
	Tooth jammed in cut	Do not enter new blade in that cut
	Poor cutting fluid application or ratio	Adjust coolant flow and ratio
	Hard material or heavy scale	Check material or surface hardness
	Wrong blade pitch	Use proper tooth selection
	Work spinning or loose nested bundles	Tighten vises or use nesting clamps
	Blade on backwards	Install blade correctly
Wear on Back of Blade	Excessive back-up guide preload	Adjust pressure blocks
wear on back of blade	Low blade tension	Refer to operator's manual
		Switch to a bi-metal blade
	Incorrect blade (carbon steel type)	
	Excessive feed rate or pressure	Reduce feed rate or pressure
	Damaged or worn pressure block	Replace pressure block
	Guide arms spaced too far apart	Adjust guide arms closer to work
	Blade rubbing band wheel flanges	Adjust wheel alignment
Rough Cut	Dull or damaged blade	Install new blade
	Incorrect feed or speed	Refer to cutting recommendations
	Blade not supported properly	Adjust or tighten guide arms
	Low blade tension	Refer to operator's manual
Madda da Gasalla da Madalla	Incorrect tooth pitch	Use proper tooth selection
Washboard surface, vibration and/or chatter	Guide arms too far apart	Adjust guide arms closer to material
Wear Lines - Loss of Set	Saw side guides too tight	Adjust guides properly
	Blade riding too high in guide	Adjust rollers or pressure blocks
	Blade teeth riding on band wheel surface	Adjust tracking or replace wheel
	Wrong blade width for machine	Refer to operator's manual
	Chips being carried back into cut	Replace or adjust chip brush
4 4 4 4 4 4	Worn or damaged pressure block	Replace pressure block
	Insufficient coolant flow	Adjust coolant flow
Twisted Blade	Blade binding in cut	Adjust feed or use heavy set blades
	Side guides are too tight	Adjust guides
	Work loose in vise	Adjust vise
Contour sawing	Feed too heavy	Reduce feed pressure
	Guide arms too far apart	Adjust guide arms closer to material
Blade Wear	Incorrect blade	Use proper tooth selection
	Heavy feed or too fast speed	Refer to cutting recommendations
gal Jaagag	Lack of cutting fluid	Adjust coolant flow or ratio
Teeth blued.	Blade installed backwards	Install blade correctly
Teeth Fracturing - Front	Material loose in vise	Adjust vise
	Incorrect tooth pitch	Use proper tooth selection
Lucur A	Feed too heavy	Reduce feed rate
Front of tooth indicates work spinning in vise.	Speed too fast	Refer to cutting recommendations

## TROUBLESHOOTING

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